**DISCLAIMER: Data displayed below is for informational purposes only.**

**EXISTING DEFICIENCIES:**

**Water:** None

**Sewer:** None

**Solid Waste:** The existing landfill has exceeded its useful life. It is too close to the village center and airport (within a 1/4 mile) - not meeting state and FAA regulations. The landfill is not covered by an ADEC landfill permit, floods on an annual basis due to its location in the Black River drainage, and does not meet state standards for location, operation, or maintenance. In an Indian Health Service Report entitled "Status of Open Dumps on Indian Lands", the Chalkyitsik landfill was designated as a high-threat facility regarding the potential threat to human health and the environment.

**O & M:** None

**PROPOSED FACILITIES:**

**Water:** None

**Sewer:** None

**Solid Waste:** The construction of a new landfill was funded in 2014. Chalkyitsik's existing landfill is in disarray and desperately needs to be cleaned up before it causes anymore environmental hazards/issues. ANTHC will use Chalkyitsik's vast array of heavy equipment to transport trash from the existing landfill to the new one, as well as, proper disposal of hazardous waste such as used oil, antifreeze, white materials, etc.

**O & M:** None

COST ESTIMATE

| Scope Item | Funding Source | Quantity | Units | Health Impact Tier |
|---|---|---|---|---|
| Solid Waste B (Closure) - Closure, solid waste site | IHS Regular | 1 | Ac. | D |

Health Impact Tier:
A - First Service
B - Regulatory Compliance
C - Essential Upgrades
D - Beneficial Upgrades
E - Desired Upgrades

**Total Costs: $199,650.00**

**DISCLAIMER: Data displayed below is for informational purposes only.**

**EXISTING DEFICIENCIES:**

**Water:** Households currently self-haul from the washeteria's watering point.

**Sewer:** Households currently utilized outhouses.

**Solid Waste:** None

**O & M:** None

**PROPOSED FACILITIES:**

**Water:** Design and construct community water transmission main/connection system.

**Sewer:** Design and construct community sewage force main and lift stations with a new sewage lagoon.

**Solid Waste:** None

**O & M:** None

COST ESTIMATE

| Scope Item | Funding Source | Quantity | Units | Health Impact Tier |
|---|---|---|---|---|
| WATER TREATMENT - Treatment plant, rehabilitation, water treatment | IHS Regular | 1 | Ea. | A |
| SEWER COLLECTION - Force mains, above ground, sewer collection | IHS Regular | 1 | Ft. | A |

Health Impact Tier:
A - First Service
B - Regulatory Compliance
C - Essential Upgrades
D - Beneficial Upgrades
E - Desired Upgrades

**Total Costs: $8,573,400.00**

**DISCLAIMER: Data displayed below is for informational purposes only.**
**Updates Completed By Engineer**

**EXISTING DEFICIENCIES:**

**Water:** None in this project

**Sewer:** Supplement to AN10NQ7 and AN13NY for lagoon and force main. No construction to date until enough money is awarded. Some equipment bought. Regulators required pre-construction design to increase secondary cell. All raw human waste, except for the school's and 3 washers, is disposed of to the ground at a dumping area. March 2013 cost estimates ov 3M excluding EMT exceeded 2M available. See Chefornak Community attachments for cost estimates, and plans. NOTICE: -15 Points applied. This project should be scored using the project in PDS with a similar scope to find the actual capital cost.

**Solid Waste:** None

**O & M:** None

**PROPOSED FACILITIES:**

**Water:** None in this project.

**Sewer:** Grant supplement to be used for second season to construct lagoon, force main, and dump station to serve entire community. Season One, 6 weeks in March 2015, funded. Season Two in very late 2015 and 2016 is underfunded.

**Solid Waste:** None

**O & M:** None

**CIP Details:**

**Related Projects:**

**Ongoing Funding:** 2013 pumphouse

COST ESTIMATE

| Scope Item | Funding Source | Quantity | Units | Health Impact Tier |
|---|---|---|---|---|
| SEWER TREATMENT - Lagoon, borrow local material, sewer treatment | IHS Regular | 4 | Ac. | A |
| SEWER COLLECTION - Honeybucket haul stations, sewer collection | IHS Regular | 1 | Ea. | A |
| SEWER COLLECTION - Force mains, above ground, sewer collection | IHS Regular | 1100 | Ft. | A |

Health Impact Tier:
A - First Service
B - Regulatory Compliance
C - Essential Upgrades
D - Beneficial Upgrades
E - Desired Upgrades

**Total Costs: $980,000.00**

**DISCLAIMER: Data displayed below is for informational purposes only.**

**EXISTING DEFICIENCIES:**

**Water:** None
**Sewer:** None
**Solid Waste:** None
**O & M:** None

**PROPOSED FACILITIES:**

**Water:** None
**Sewer:** None
**Solid Waste:** None
**O & M:** None

COST ESTIMATE

| Scope Item | Funding Source | Quantity | Units | Health Impact Tier |
|---|---|---|---|---|
| SEWER COLLECTION - Force mains, above ground, sewer collection | IHS Regular | 1 | Ft. | E |
| SEWER TREATMENT - Lagoon, borrow local material, sewer treatment | IHS Regular | 1 | Ac. | E |
| SEWER COLLECTION - Lift station, sewer collection | IHS Regular | 1 | Ea. | E |

Health Impact Tier:
A - First Service
B - Regulatory Compliance
C - Essential Upgrades
D - Beneficial Upgrades
E - Desired Upgrades

**Total Costs: $3,540,705.00**

**DISCLAIMER: Data displayed below is for informational purposes only.**

**EXISTING DEFICIENCIES:**

**Water:** None in this project.

**Sewer:** Honeybucket dump pit built in 1980's by US PHS, and still in use, needs sanitary closure. Further, there is no dedicated location for disposal of the composting sewage from the existing Natures Head toilets used by 4 homes in Chefornak.

**Solid Waste:** None in this project.

**O & M:** None in this project.

**PROPOSED FACILITIES:**

**Water:**

**Sewer:** Closure of the honeybucket dump area. Establish landfill area to dump sewage from alternative toilets to finish the composting process.

**Solid Waste:** None in this project.

**O & M:** None in this project.

COST ESTIMATE

| Scope Item | Funding Source | Quantity | Units | Health Impact Tier |
|---|---|---|---|---|
| Sewer, Other - Other sewer | IHS Regular | 1 | Ls. | D |

Health Impact Tier:
A - First Service
B - Regulatory Compliance
C - Essential Upgrades
D - Beneficial Upgrades
E - Desired Upgrades

**Total Costs: $200,000.00**

**DISCLAIMER: Data displayed below is for informational purposes only.**

**EXISTING DEFICIENCIES:**

**Water:** None

**Sewer:** The Village of Chenega Bay does not have a sludge disposal site. Lack of a permitted facility forces the community to backhaul sludge on a barge to a disposal site in Valdez at a substantial cost. The existing landfill is not permitted to accept sludge disposal. There is a 200-LF gravity sewer main section with a horizontal bend without a manhole, shallow manhole (2-ft), lack of invert channels, lack of beaver slide, and lack of MH penetration grouting that results in infiltration and causes solid backup in the sewer main and freezing issues.

**Solid Waste:** None

**O & M:** None

**PROPOSED FACILITIES:**

**Water:** None

**Sewer:** This project will construct a permitted sludge disposal area that is sized for the community and upgrade 200-LF section of gravity sewer main to prevent solids backup, main blockage, and freezing.

**Solid Waste:** None

**O & M:** None

COST ESTIMATE

| Scope Item | Funding Source | Quantity | Units | Health Impact Tier |
|---|---|---|---|---|
| SEWER TREATMENT - Lagoon, borrow local material, sewer treatment | IHS Regular | 1 | Ac. | D |
| SEWER COLLECTION - Mains, direct bury, sewer collection | IHS Regular | 200 | Ft. | D |
| Sewer, Other - General estimate, sewer other | IHS Regular | 1 | Ls. | D |

Health Impact Tier:
A - First Service
B - Regulatory Compliance
C - Essential Upgrades
D - Beneficial Upgrades
E - Desired Upgrades

**Total Costs: $632,000.00**

**DISCLAIMER: Data displayed below is for informational purposes only.**

**EXISTING DEFICIENCIES:**

**Water:** None

**Sewer:** None

**Solid Waste:** Chenega Bay landfill is approaching capacity.

**O & M:** None

**PROPOSED FACILITIES:**

**Water:** None

**Sewer:** None

**Solid Waste:** This project will complete a solid waste management plan to identify future waste stream volumes, identify alternatives for solid waste disposal and recycling, and recommend an alternative for construction of a long term facility.

**O & M:** None

COST ESTIMATE

| Scope Item | Funding Source | Quantity | Units | Health Impact Tier |
|---|---|---|---|---|
| Solid Waste C (Development) - Development, solid waste site | IHS Regular | 5 | Ac. | D |

Health Impact Tier:
A - First Service
B - Regulatory Compliance
C - Essential Upgrades
D - Beneficial Upgrades
E - Desired Upgrades

**Total Costs: $100,000.00**

**DISCLAIMER: Data displayed below is for informational purposes only.**

**EXISTING DEFICIENCIES:**

**Water:** The 2012 Chevak Sanitation Facilities Master Plan discussed several deficiencies within the water treatment plant. Deficiencies are listed in the attached excerpt from the master plan.

**Sewer:** None

**Solid Waste:** None

**O & M:** None

**PROPOSED FACILITIES:**

**Water:** This project will address the deficiencies as detailed in the 2012 master plan. (See attached scope of work)

**Sewer:** None

**Solid Waste:** None

**O & M:** None

COST ESTIMATE

| Scope Item | Funding Source | Quantity | Units | Health Impact Tier |
|---|---|---|---|---|
| WATER TREATMENT - Treatment plant, rehabilitation, water treatment | IHS Regular | 1 | Ea. | C |

Health Impact Tier:
A - First Service
B - Regulatory Compliance
C - Essential Upgrades
D - Beneficial Upgrades
E - Desired Upgrades

**Total Costs: $1,521,450.00**

**DISCLAIMER: Data displayed below is for informational purposes only.**

**EXISTING DEFICIENCIES:**

**Water:** The existing water storage tank does not provide the City with enough water for emergency storage or to allow proper O&M of the tank. Furthermore, the existing tank does not provide enough storage for the growing population.

**Sewer:** None

**Solid Waste:** None

**O & M:** None

**PROPOSED FACILITIES:**

**Water:** This project will provide a new 150,000 water storage tank.

**Sewer:** None

**Solid Waste:** None

**O & M:** None

COST ESTIMATE

| Scope Item | Funding Source | Quantity | Units | Health Impact Tier |
|---|---|---|---|---|
| WATER DISTRIBUTION - Water storage tank, no foundation, water distribution | IHS Regular | 150000 | Gal. | E |
| WATER DISTRIBUTION - Foundation - thermosyphen gravel pad, water distribution | IHS Regular | 600 | Sf. | E |

Health Impact Tier:
A - First Service
B - Regulatory Compliance
C - Essential Upgrades
D - Beneficial Upgrades
E - Desired Upgrades

**Total Costs: $723,000.00**

**DISCLAIMER: Data displayed below is for informational purposes only.**

**EXISTING DEFICIENCIES:**

**Water:** None

**Sewer:** The existing Chevak sewage lagoon is nearing capacity according to the regulations set by the Alaska Department of Environmental Conservation. The existing lagoon is not permitted and ADEC will not permit the existing lagoon as it is reaching capacity.

**Solid Waste:** None

**O & M:** None

**PROPOSED FACILITIES:**

**Water:** None

**Sewer:** This project will replace infrastructure that is nearing design capacity. The proposed lagoon will be constructed and permitted to meet all ADEC requirements. Furthermore, the lagoon will be designed in order to serve the community's projected population growth over the next 20 years.

**Solid Waste:** None

**O & M:** None

COST ESTIMATE

| Scope Item | Funding Source | Quantity | Units | Health Impact Tier |
|---|---|---|---|---|
| SEWER TREATMENT - Lagoon, borrow local material, sewer treatment | IHS Regular | 10 | Ac. | D |

Health Impact Tier:
A - First Service
B - Regulatory Compliance
C - Essential Upgrades
D - Beneficial Upgrades
E - Desired Upgrades

**Total Costs: $2,905,210.00**

**DISCLAIMER: Data displayed below is for informational purposes only.**

**EXISTING DEFICIENCIES:**

**Water:** None

**Sewer:** The vacuum valves in Chevak are nearing the end of their useful life, causing vacuum sewer valves to leak which has doubled the electricity usage for the sewer plant and have caused three $20,000 vacuum pumps to wear out in only two years instead of the expected seven years. In addition, the deteriorating valves cause raw sewage to back up into affected homes at least twice per year.

**Solid Waste:** None

**O & M:** None

**PROPOSED FACILITIES:**

**Water:** None

**Sewer:** The proposed project will replace the failed vacuum sewer valves in resident's homes. It is estimated that this project will save the community over $100,000 per year in water and sewer expenses. This amounts to a $500 savings per household per year. The failing vacuum sewer valves allow sewage to leak from the system creating a health and safety problem for residents. Replacing the systems will remove this health hazard altogether.

**Solid Waste:** None

**O & M:** None

COST ESTIMATE

| Scope Item | Funding Source | Quantity | Units | Health Impact Tier |
|---|---|---|---|---|
| SEWER COLLECTION - In-house plumbing, vacuum, sewer collection | IHS Regular | 169 | Ea. | D |

Health Impact Tier:
A - First Service
B - Regulatory Compliance
C - Essential Upgrades
D - Beneficial Upgrades
E - Desired Upgrades

**Total Costs: $354,900.00**

**DISCLAIMER: Data displayed below is for informational purposes only.**

**EXISTING DEFICIENCIES:**

**Water:** The existing water treatment plant was constructed 20 years ago and does not comply with the current drinking water regulations. The existing WTP sand filters are undersized, solo valves are used which are known cross connections, and there is no polymer injection for giardia/cryptosporidium removal. The new water treatment plant size will have to be larger than the existing facility to accommodate larger filters for increased water demand. The water treatment plant discharges backwash water directly to an adjacent ditch. The WTP uses raw water for backwashing the filters.

**Sewer:** None

**Solid Waste:** None

**O & M:** None

**PROPOSED FACILITIES:**

**Water:** This project proposes to construct a new WTP and backwash lagoon in order for the plant to comply with current SDWA regulations. Finished water will be delivered to a newly constructed 400,000 gallon water storage tank. The plant will utilize polymers to coagulate and flocculate particulate matter within the raw water. Filtered water turbidity readings are expected to be routinely less than 0.3 NTU's, the current standard. The WTP project is the final water system improvement project needed at this time. Backwash water will be supplied by the new tank, rather than the raw water source. With polymer addition, disinfection by-products will be reduced.

**Sewer:** None

**Solid Waste:** None

**O & M:** None

COST ESTIMATE

| Scope Item | Funding Source | Quantity | Units | Health Impact Tier |
|---|---|---|---|---|
| WATER TREATMENT - Foundation - concrete foundation | IHS Regular | 1200 | Sf. | B |
| WATER TREATMENT - Treatment plant, new, no foundation, water treatment | IHS Regular | 1200 | Sf. | B |
| Water, Other - Other water | IHS Regular | 1 | Ls. | B |

Health Impact Tier:
A - First Service
B - Regulatory Compliance
C - Essential Upgrades
D - Beneficial Upgrades
E - Desired Upgrades

**Total Costs: $3,580,000.00**

**DISCLAIMER: Data displayed below is for informational purposes only.**

**EXISTING DEFICIENCIES:**

**Water:** A wood buttress impoundment structure constructed in 1947 forms the 20-acre reservoir known as Indian Creek Lake. A 10-inch wood stave and steel line transports water from the impoundment to the Chignik Bay water treatment plant and the Trident cannery. Both the impoundment structure and the transmission line should be upgraded (see attached pictures of the old facilities). Many joints in the transmission line leak, causing an excessive amount of water loss.

**Sewer:** None

**Solid Waste:** None

**O & M:** None

**PROPOSED FACILITIES:**

**Water:** Replace the existing impoundment structure on Indian Creek Lake with a new structure and intake. Replace the water transmission line with a 20-inch HDPE water line.

**Sewer:** None

**Solid Waste:** None

**O & M:** None

COST ESTIMATE

| Scope Item | Funding Source | Quantity | Units | Health Impact Tier |
|---|---|---|---|---|
| WATER SOURCE - Surface water impoundment, water source | IHS Regular | 1 | Ea. | C |
| WATER DISTRIBUTION - Mains, direct bury, water distribution | IHS Regular | 6000 | Ft. | C |

Health Impact Tier:
A - First Service
B - Regulatory Compliance
C - Essential Upgrades
D - Beneficial Upgrades
E - Desired Upgrades

**Total Costs: $3,081,340.00**

**DISCLAIMER: Data displayed below is for informational purposes only.**

**EXISTING DEFICIENCIES:**

**Water:** The existing water treatment plant needs to update its treatment technology to acquire the log removal set forth by the EPA drinking water regulations.

**Sewer:** None

**Solid Waste:** None

**O & M:** None

**PROPOSED FACILITIES:**

**Water:** This project would rehab the existing water treatment plant to get the plant in compliance with the federal and state drinking water regulations.

**Sewer:** None

**Solid Waste:** None

**O & M:** None

COST ESTIMATE

| Scope Item | Funding Source | Quantity | Units | Health Impact Tier |
|---|---|---|---|---|
| WATER TREATMENT - Treatment plant, rehabilitation, water treatment | IHS Regular | 1 | Ea. | C |

Health Impact Tier:
A - First Service
B - Regulatory Compliance
C - Essential Upgrades
D - Beneficial Upgrades
E - Desired Upgrades

**Total Costs: $950,000.00**

**DISCLAIMER: Data displayed below is for informational purposes only.**

**EXISTING DEFICIENCIES:**

**Water:** None

**Sewer:** None

**Solid Waste:** The existing solid waste facility is unpermitted and requires clean up.

**O & M:** None

**PROPOSED FACILITIES:**

**Water:** None

**Sewer:** None

**Solid Waste:** Permit and clean up the existing landfill.

**O & M:** None

COST ESTIMATE

| Scope Item | Funding Source | Quantity | Units | Health Impact Tier |
|---|---|---|---|---|
| Solid Waste A (Plan) - Management Plan, Solid Waste | IHS Regular | 1 | Ls. | D |

Health Impact Tier:
A - First Service
B - Regulatory Compliance
C - Essential Upgrades
D - Beneficial Upgrades
E - Desired Upgrades

**Total Costs: $400,000.00**

**DISCLAIMER: Data displayed below is for informational purposes only.**

**EXISTING DEFICIENCIES:**

**Water:** Average annual (four [4] sampling events from March 2004 through April 2005) arsenic concentration in the proposed new potable groundwater source for community was determined to be approximately 11.5 ppb. Initial funding (USDARD/VSW 2003) for the new WTP did not take into account the additional cost associated with the treatment of arsenic. Also, funding for the water transmission main to transfer water from the new WTP to the new WST and ultimately to tie in to the existing community distribution system was for a single 8-inch HDPE line (floating tank). This configuration does not promote water quality or freshness within the distribution system.

**Sewer:** None

**Solid Waste:** None

**O & M:** None

**PROPOSED FACILITIES:**

**Water:** This project will construct a new water treatment plant and backwash lagoon to comply with federal drinking water regulations. It will also construct a water main tie-in from the new plant to the WST for the required contact time in the treatment process. The backwash water will utilize treated drinking water from the community distribution system for the backwashing of the filters.

**Sewer:** None

**Solid Waste:** None

**O & M:** None

COST ESTIMATE

| Scope Item | Funding Source | Quantity | Units | Health Impact Tier |
|---|---|---|---|---|
| WATER TREATMENT - Treatment plant, new, no foundation, water treatment | IHS Regular | 1 | Sf. | C |
| WATER TREATMENT - Foundation - conventional, local gravel, water treatment | IHS Regular | 1 | Sf. | C |
| WATER TREATMENT - Treatment plant, new, no foundation, water treatment | VSW/RD | 1 | Sf. | C |

Health Impact Tier:
A - First Service
B - Regulatory Compliance
C - Essential Upgrades
D - Beneficial Upgrades
E - Desired Upgrades

**Total Costs: $2,200,000.00**

**DISCLAIMER: Data displayed below is for informational purposes only.**

**EXISTING DEFICIENCIES:**

**Water:** None

**Sewer:** 12 existing community homes are utilizing aging and failing on-site septic systems.

**Solid Waste:** None

**O & M:** None

**PROPOSED FACILITIES:**

**Water:** None

**Sewer:** Installation of gravity wastewater collection mains and associated service connections to place 12 homes on the community wide gravity collection system. This project will construct 2 lift stations to serve these 12 homes. This is the final phase for the sewer system upgrades proposed in the approved water and sewer engineering feasibility study for the community.

**Solid Waste:** None

**O & M:** None

COST ESTIMATE

| Scope Item | Funding Source | Quantity | Units | Health Impact Tier |
|---|---|---|---|---|
| SEWER COLLECTION - Service lines, direct bury, sewer collection | IHS Regular | 2320 | Ft. | C |
| SEWER COLLECTION - Lift station, sewer collection | IHS Regular | 2 | Ea. | C |
| SEWER COLLECTION - Mains, direct bury, sewer collection | IHS Regular | 2260 | Ft. | C |
| SEWER COLLECTION - Force mains, direct bury, sewer collection | IHS Regular | 1680 | Ft. | C |

Health Impact Tier:
A - First Service
B - Regulatory Compliance
C - Essential Upgrades
D - Beneficial Upgrades
E - Desired Upgrades

**Total Costs: $930,043.00**

**DISCLAIMER: Data displayed below is for informational purposes only.**
**Updates Completed By Engineer**

**EXISTING DEFICIENCIES:**

**Water:** None
**Sewer:** None
**Solid Waste:** Unpermitted solid waste site.
**O & M:** None

**PROPOSED FACILITIES:**

**Water:** None
**Sewer:** None
**Solid Waste:** Plan, design and construct new solid wste disposal site. Close existing open dump.
**O & M:** None

**CIP Details:**
**Related Projects:**
**Ongoing Funding:**

COST ESTIMATE

| Scope Item | Funding Source | Quantity | Units | Health Impact Tier |
|---|---|---|---|---|
| Solid Waste C (Development) - Development, solid waste site | IHS Regular | 3 | Ac. | D |
| Solid Waste B (Closure) - Closure, solid waste site | IHS Regular | 1 | Ac. | D |

Health Impact Tier:
A - First Service
B - Regulatory Compliance
C - Essential Upgrades
D - Beneficial Upgrades
E - Desired Upgrades

**Total Costs: $469,300.00**

**DISCLAIMER: Data displayed below is for informational purposes only.**

**EXISTING DEFICIENCIES:**

**Water:** The existing water storage tank is located within the treatment plant. The facility is too smalll to hold the equipment that is necessary for the treatment to be in compliance with LT2SWTR and Stage 2 Disinfectant and Disinfection Byproducts Rule. The water storage tank's capacity is insufficient for the size of the community as it holds 3,500 gallons of water. The existing wellhead is situated near the Yukon River boat ramp and is unprotected from surface contamination.

**Sewer:** None

**Solid Waste:** None

**O & M:** None

**PROPOSED FACILITIES:**

**Water:** Construct a water storage tank outside the treatment plant. Modify the existing treatment system within the existing facility to bring the plant in compliance with the new EPA rules. The existing well will be modified to prevent contamination from surface water flooding.

**Sewer:** None

**Solid Waste:** None

**O & M:** None

COST ESTIMATE

| Scope Item | Funding Source | Quantity | Units | Health Impact Tier |
|---|---|---|---|---|
| WATER TREATMENT - Treatment plant, rehabilitation, water treatment | IHS Regular | 1 | Ea. | C |
| WATER DISTRIBUTION - Water storage tank, no foundation, water distribution | IHS Regular | 50000 | Gal. | C |
| WATER DISTRIBUTION - Foundation - concrete foundation | IHS Regular | 500 | Sf. | C |
| Water, Other - Other water | IHS Regular | 1 | Ls. | C |
| Water, Other - Study, water other | VSW/EPA | 1 | Ls. | C |

Health Impact Tier:
A - First Service
B - Regulatory Compliance
C - Essential Upgrades
D - Beneficial Upgrades
E - Desired Upgrades

**Total Costs: $650,000.00**

**DISCLAIMER: Data displayed below is for informational purposes only.**

**EXISTING DEFICIENCIES:**

**Water:** Nine (9) homes located outside of town, haul water and have no indoor plumbing.

**Sewer:** Nine (9) homes located out of town, either use honey buckets or outhouses for sewage disposal. The homes also don't have indoor plumbing.

**Solid Waste:** None

**O & M:** None

**PROPOSED FACILITIES:**

**Water:** Drill/install individual wells and in-house water systems as well as provide indoor plumbing for nine (9) homes.

**Sewer:** Install onsite septic systems and indoor plumbing for nine (9) homes. NOTE: -15 pts applied until and engineering report on the feasibility of on-site systems working in Circle is completed.

**Solid Waste:** None

**O & M:** None

COST ESTIMATE

| Scope Item | Funding Source | Quantity | Units | Health Impact Tier |
|---|---|---|---|---|
| WATER SOURCE - Ground water well, water source | IHS Regular | 9 | Ea. | A |
| SEWER TREATMENT - Septic tank/drainfield, individual, sewer treatment | IHS Regular | 9 | Ea. | A |
| WATER DISTRIBUTION - In-house plumbing, water distribution | IHS Regular | 9 | Ea. | A |
| SEWER COLLECTION - In-house plumbing, gravity, sewer collection | IHS Regular | 9 | Ea. | A |

Health Impact Tier:
A - First Service
B - Regulatory Compliance
C - Essential Upgrades
D - Beneficial Upgrades
E - Desired Upgrades

**Total Costs: $1,122,368.00**

**DISCLAIMER: Data displayed below is for informational purposes only.**

**EXISTING DEFICIENCIES:**

**Water:** 17 native homes self-haul water.

**Sewer:** 17 homes in the downtown area use either honey buckets or outhouses for their wastewater.

**Solid Waste:** None

**O & M:** None

**PROPOSED FACILITIES:**

**Water:** Install 8900 FT of piped water to the remaining homes in the downtown section.

**Sewer:** Install 8900 FT of piped sewer to the remaining homes in the downtown section. Sewer will include a community lift station as well as connections to each commercial building or business.

**Solid Waste:** None

**O & M:** None

COST ESTIMATE

| Scope Item | Funding Source | Quantity | Units | Health Impact Tier |
|---|---|---|---|---|
| WATER DISTRIBUTION - Mains, direct bury, water distribution | IHS Regular | 8900 | Ft. | A |
| SEWER COLLECTION - Mains, direct bury, sewer collection | IHS Regular | 8900 | Ft. | A |
| SEWER COLLECTION - In-house plumbing, gravity, sewer collection | IHS Regular | 36 | Ea. | A |
| WATER DISTRIBUTION - In-house plumbing, water distribution | IHS Regular | 36 | Ea. | A |
| SEWER COLLECTION - Lift station, sewer collection | IHS Regular | 1 | Ea. | A |

Health Impact Tier:
A - First Service
B - Regulatory Compliance
C - Essential Upgrades
D - Beneficial Upgrades
E - Desired Upgrades

**Total Costs: $4,617,990.00**

**DISCLAIMER: Data displayed below is for informational purposes only.**
**Updates Completed By Engineer**

## EXISTING DEFICIENCIES:

**Water:** Coffman Cove's water source is an infiltration gallery in Chum Creek. Due to storms and erosion, the creek has moved away from the gallery, forcing the city to divert water to the gallery by placing sand bags in the creek. In addition, according to a recent hydrological study of Chum Creek, water is backing up behind a tree that fell into the creek. If this blockage is washed away, the stream will move to a different channel, and no amount of sand bagging will keep water flowing into the gallery. When this happens, Coffman Cove will not have a water source.

**Sewer:** The houses in Luck Point subdivision have individual sewage pumps, which have mostly failed, creating ongoing maintenance problems for homeowners and the city.

**Solid Waste:** None

**O & M:** None

## PROPOSED FACILITIES:

**Water:** Install a new infiltration gallery, taking into account potential future movements of the creek.

**Sewer:** Construct a lift station to serve the Luck Point houses.

**Solid Waste:** None

**O & M:** None

**CIP Details:**

**Related Projects:** None.

**Ongoing Funding:** None.

COST ESTIMATE

| Scope Item | Funding Source | Quantity | Units | Health Impact Tier |
|---|---|---|---|---|
| WATER SOURCE - Surface water gallery, water source | IHS Regular | 1 | Ea. | C |
| SEWER COLLECTION - Lift station, sewer collection | IHS Regular | 1 | Ea. | C |

Health Impact Tier:
A - First Service
B - Regulatory Compliance
C - Essential Upgrades
D - Beneficial Upgrades
E - Desired Upgrades

**Total Costs: $1,550,000.00**

**DISCLAIMER: Data displayed below is for informational purposes only.**
**DRAFT**

**EXISTING DEFICIENCIES:**

**Water:** None.

**Sewer:** Community lacks piped sewage collection system, service lines, and plumbing. Lagoon sized for washeteria only. Due to the lack of in-home facilities, the collection rate for this system is considered about 85% on the O&M score sheet. The washeteria is a coin/token operated facility. Consequently collection rate is 100%.

**Solid Waste:** None.

**O & M:** None.

**PROPOSED FACILITIES:**

**Water:** None

**Sewer:** Construct a new lagoon cell and rehabilitate the existing lagoon cell to serve the proposed piped sewer system on onsite systems. This project will serve the wastewater system proposed in the master plan. The master plan is not approved by the State of Alaska. NOTE: -15 pts applied due to lack of master plan.

**Solid Waste:** None.

**O & M:** None.

**CIP Details:**

**Related Projects:**

**Ongoing Funding:**

COST ESTIMATE

| Scope Item | Funding Source | Quantity | Units | Health Impact Tier |
|---|---|---|---|---|
| SEWER TREATMENT - Lagoon, borrow local material, sewer treatment | IHS Regular | 1 | Ac. | A |

Health Impact Tier:
A - First Service
B - Regulatory Compliance
C - Essential Upgrades
D - Beneficial Upgrades
E - Desired Upgrades

**Total Costs: $1,900,000.00**

**DISCLAIMER: Data displayed below is for informational purposes only.**
**DRAFT**

**EXISTING DEFICIENCIES:**

**Water:** None
**Sewer:** Community lacks piped sewer.
**Solid Waste:** None
**O & M:** None

**PROPOSED FACILITIES:**

**Water:** None
**Sewer:** Provide a vacuum sewer truck and storage facility to support community wide sewer infrastructure.
**Solid Waste:** None
**O & M:** None

**CIP Details:**
**Related Projects:**
**Ongoing Funding:**

COST ESTIMATE

| Scope Item | Funding Source | Quantity | Units | Health Impact Tier |
|---|---|---|---|---|
| SEWER COLLECTION - Shop / garage, no foundation, sewer collection | IHS Regular | 1 | Sf. | D |
| SEWER TREATMENT - Septic tank pumper, sewer treatment | IHS Regular | 1 | Ea. | A |

Health Impact Tier:
A - First Service
B - Regulatory Compliance
C - Essential Upgrades
D - Beneficial Upgrades
E - Desired Upgrades

**Total Costs: $1,982,000.00**

**DISCLAIMER: Data displayed below is for informational purposes only.**
**Updates Completed By Engineer**

**EXISTING DEFICIENCIES:**

**Water:** Community lacks piped water.

**Sewer:** Community lacks piped sewer.

**Solid Waste:** None

**O & M:** None

**PROPOSED FACILITIES:**

**Water:** Provide water wells and in-home plumbing to Upper Village and 7 homes in Lower Village.

**Sewer:** Provide septics, lagoon and in-home plumbing to Upper Village and 7 homes in Lower Village.

**Solid Waste:** None

**O & M:** None

**CIP Details:**

**Related Projects:**

**Ongoing Funding:**

COST ESTIMATE

| Scope Item | Funding Source | Quantity | Units | Health Impact Tier |
|---|---|---|---|---|
| SEWER COLLECTION - In-house plumbing, gravity, sewer collection | IHS Regular | 7 | Ea. | A |
| SEWER COLLECTION - In-house plumbing, gravity, sewer collection | IHS Regular | 4 | Ea. | A |
| WATER DISTRIBUTION - In-house plumbing, water distribution | IHS Regular | 7 | Ea. | A |
| WATER DISTRIBUTION - In-house plumbing, water distribution | IHS Regular | 4 | Ea. | A |
| WATER SOURCE - Ground water well, water source | IHS Regular | 7 | Ea. | A |
| WATER SOURCE - Ground water well, water source | IHS Regular | 4 | Ea. | A |
| SEWER TREATMENT - Septic tank/drainfield, individual, sewer treatment | IHS Regular | 7 | Ea. | A |
| SEWER TREATMENT - Septic tank/drainfield, individual, sewer treatment | IHS Regular | 4 | Ea. | A |

Health Impact Tier:
A - First Service
B - Regulatory Compliance
C - Essential Upgrades
D - Beneficial Upgrades
E - Desired Upgrades

**Total Costs: $2,468,400.00**

**DISCLAIMER: Data displayed below is for informational purposes only.**
**Updates Completed By Engineer**

**EXISTING DEFICIENCIES:**

**Water:** Community lacks piped water distribution system, service lines and plumbing.

**Sewer:** Community lacks piped sewer collection system, service lines and plumbing.

**Solid Waste:** None

**O & M:** None

**PROPOSED FACILITIES:**

**Water:** Provide piped water, including service lines and in-home plumbing to Middle Village.

**Sewer:** Provide piped sewer, including service lines and in-home plumbing to Middle Village.

**Solid Waste:** none

**O & M:** None

**CIP Details:**

**Related Projects:**

**Ongoing Funding:**

COST ESTIMATE

| Scope Item | Funding Source | Quantity | Units | Health Impact Tier |
|---|---|---|---|---|
| WATER DISTRIBUTION - Mains, direct bury, water distribution | IHS Regular | 4600 | Ft. | A |
| WATER DISTRIBUTION - In-house plumbing, water distribution | IHS Regular | 7 | Ea. | A |
| WATER DISTRIBUTION - In-house plumbing, water distribution | IHS Regular | 5 | Ea. | A |
| WATER DISTRIBUTION - Service lines, direct bury, water distribution | IHS Regular | 1000 | Ft. | A |
| WATER DISTRIBUTION - Mains, direct bury, water distribution | IHS Regular | 4600 | Ft. | A |
| Water, Other - Professional Services (engineering) | VSW/RD | 1 | Ls. | A |
| SEWER COLLECTION - Mains, direct bury, sewer collection | IHS Regular | 8000 | Ft. | A |
| SEWER COLLECTION - In-house plumbing, gravity, sewer collection | IHS Regular | 7 | Ea. | A |
| SEWER COLLECTION - In-house plumbing, gravity, sewer collection | IHS Regular | 5 | Ea. | A |

| | | | | |
|---|---|---|---|---|
| SEWER COLLECTION - Mains, direct bury, sewer collection | IHS Regular | 1 | Ft. | A |
| Sewer, Other - Professional Services (engineering) | VSW/RD | 1 | Ls. | A |
| SEWER COLLECTION - Service lines, direct bury, sewer collection | IHS Regular | 1000 | Ft. | A |

Health Impact Tier:
A - First Service
B - Regulatory Compliance
C - Essential Upgrades
D - Beneficial Upgrades
E - Desired Upgrades

**Total Costs: $6,235,900.00**

**DISCLAIMER: Data displayed below is for informational purposes only.**
**Updates Completed By Engineer**

**EXISTING DEFICIENCIES:**

**Water:** The community lacks a piped water system.

**Sewer:** The community lacks a piped sewer system.

**Solid Waste:** None

**O & M:** None

**PROPOSED FACILITIES:**

**Water:** Provide water distribution main, service lines and in-home plumbing for Lower Village.

**Sewer:** Provide sewer collection main, service lines and in-home plumbing for Lower Village.

**Solid Waste:** None

**O & M:** None

**CIP Details:**

**Related Projects:**

**Ongoing Funding:**

COST ESTIMATE

| Scope Item | Funding Source | Quantity | Units | Health Impact Tier |
|---|---|---|---|---|
| WATER DISTRIBUTION - In-house plumbing, water distribution | IHS Regular | 9 | Ea. | A |
| WATER DISTRIBUTION - Mains, direct bury, water distribution | IHS Regular | 12240 | Ft. | A |
| WATER DISTRIBUTION - In-house plumbing, water distribution | IHS Regular | 9 | Ea. | A |
| WATER DISTRIBUTION - Mains, direct bury, water distribution | VSW/RD | 1 | Ft. | A |
| Water, Other - Professional Services (engineering) | VSW/RD | 1 | Ls. | A |
| SEWER COLLECTION - Mains, direct bury, sewer collection | IHS Regular | 6100 | Ft. | A |
| SEWER COLLECTION - Mains, direct bury, sewer collection | VSW/RD | 1 | Ft. | A |
| SEWER COLLECTION - In-house plumbing, gravity, sewer collection | IHS Regular | 9 | Ea. | A |
| SEWER COLLECTION - In-house plumbing, gravity, sewer collection | IHS Regular | 9 | Ea. | A |

| | | | | |
|---|---|---|---|---|
| Sewer, Other - Professional Services (engineering) | VSW/RD | 1 | Ls. | A |
| SEWER COLLECTION - Service lines, direct bury, sewer collection | IHS Regular | 1000 | Ft. | A |
| WATER DISTRIBUTION - Service lines, direct bury, water distribution | IHS Regular | 1000 | Ft. | A |

Health Impact Tier:
A - First Service
B - Regulatory Compliance
C - Essential Upgrades
D - Beneficial Upgrades
E - Desired Upgrades

**Total Costs: $8,631,008.00**

**DISCLAIMER: Data displayed below is for informational purposes only.**

**EXISTING DEFICIENCIES:**

**Water:** None

**Sewer:** None

**Solid Waste:** The existing landfill is not useable due to permafrost, lack of O&M Equipment and steep access road.

**O & M:** None

**PROPOSED FACILITIES:**

**Water:** None

**Sewer:** None

**Solid Waste:** Realign access road, provide burn box, provide O&M equipment, provide waste haul vehicle, develop cells and stockpile cover material.

**O & M:** None

COST ESTIMATE

| Scope Item | Funding Source | Quantity | Units | Health Impact Tier |
|---|---|---|---|---|
| Solid Waste C (Development) - Development, solid waste site | IHS Regular | 3 | Ac. | D |
| Solid Waste C (Development) - Road, solid waste | IHS Regular | 850 | Ft. | D |
| Solid Waste C (Development) - Equipment, solid waste | IHS Regular | 1 | Ls. | D |

Health Impact Tier:
A - First Service
B - Regulatory Compliance
C - Essential Upgrades
D - Beneficial Upgrades
E - Desired Upgrades

**Total Costs: $1,432,500.00**

**DISCLAIMER: Data displayed below is for informational purposes only.**

**EXISTING DEFICIENCIES:**

**Water:**

**Sewer:**

**Solid Waste:** Existing site needs improvement.

**O & M:** None

**PROPOSED FACILITIES:**

**Water:** None

**Sewer:** None

**Solid Waste:** Review SW Management Plan, rehabilitate facility, provide equipment.

**O & M:** None

COST ESTIMATE

| Scope Item | Funding Source | Quantity | Units | Health Impact Tier |
|---|---|---|---|---|
| Solid Waste C (Development) - General estimate, solid waste | IHS Regular | 1 | Ls. | D |

Health Impact Tier:
A - First Service
B - Regulatory Compliance
C - Essential Upgrades
D - Beneficial Upgrades
E - Desired Upgrades

**Total Costs: $300,000.00**

**DISCLAIMER: Data displayed below is for informational purposes only.**
**Updates Completed By Engineer**

**EXISTING DEFICIENCIES:**

**Water:** None

**Sewer:** Ground water infiltrates into the vaccuum sewer building threatening the integrity of the building and its foundation. In-home vaccuum toilets are aging, electric heat trace needs replacement, and the lagoon berms and fencing need attention.

**Solid Waste:** None

**O & M:** None

**PROPOSED FACILITIES:**

**Water:** None

**Sewer:** Construct curtain drains around the vaccuum sewer building, replace aging vaccuum toilets & heat trace.

**Solid Waste:** None

**O & M:** None

**CIP Details:**

**Related Projects:**

**Ongoing Funding:**

COST ESTIMATE

| Scope Item | Funding Source | Quantity | Units | Health Impact Tier |
|---|---|---|---|---|
| SEWER TREATMENT - Treatment plant, sewer treatment | IHS Regular | 1 | Ea. | C |
| SEWER TREATMENT - Lagoon, borrow local material, sewer treatment | IHS Regular | 1 | Ac. | C |

Health Impact Tier:
A - First Service
B - Regulatory Compliance
C - Essential Upgrades
D - Beneficial Upgrades
E - Desired Upgrades

**Total Costs: $402,936.00**

**DISCLAIMER: Data displayed below is for informational purposes only.**
**Updates Completed By Engineer**

**EXISTING DEFICIENCIES:**

**Water:** None

**Sewer:** Deering is served by a single-cell wastewater lagoon which does not meet current ADEC guidelines. A portion of hte containment berm around the lagoon has settled and is allowing wastewater to leak and the perimeter fencing is incomplete.

**Solid Waste:** None

**O & M:** None

**PROPOSED FACILITIES:**

**Water:** None

**Sewer:** Repair lagoon berms & fencing and install new eathrern bermed primary cell and transfer structure.

**Solid Waste:** None

**O & M:** None

**CIP Details:**

**Related Projects:**

**Ongoing Funding:**

COST ESTIMATE

| Scope Item | Funding Source | Quantity | Units | Health Impact Tier |
|---|---|---|---|---|
| SEWER TREATMENT - Lagoon, borrow local material, sewer treatment | IHS Regular | 1 | Ac. | C |

Health Impact Tier:
A - First Service
B - Regulatory Compliance
C - Essential Upgrades
D - Beneficial Upgrades
E - Desired Upgrades

**Total Costs: $1,055,610.00**

**DISCLAIMER: Data displayed below is for informational purposes only.**
**Updates Completed By Engineer**

**EXISTING DEFICIENCIES:**

**Water:** The community utilizes a water haul system from a common watering point at the washeteria. Most community members haul their own water in open containers on dusty roads.

**Sewer:** None

**Solid Waste:** None

**O & M:** None

**PROPOSED FACILITIES:**

**Water:** Above ground seasonal piped distribution system.

**Sewer:** None

**Solid Waste:** None

**O & M:** None

**CIP Details:**

**Related Projects:**

**Ongoing Funding:**

COST ESTIMATE

| Scope Item | Funding Source | Quantity | Units | Health Impact Tier |
|---|---|---|---|---|
| WATER DISTRIBUTION - Mains, above ground, water distribution | IHS Regular | 1 | Ft. | C |
| WATER DISTRIBUTION - Service lines, above ground, water distribution | IHS Regular | 1 | Ft. | C |
| WATER DISTRIBUTION - Water storage tank, no foundation, water distribution | IHS Regular | 1 | Gal. | C |
| WATER DISTRIBUTION - In-house plumbing, water distribution | IHS Regular | 1 | Ea. | C |

Health Impact Tier:
A - First Service
B - Regulatory Compliance
C - Essential Upgrades
D - Beneficial Upgrades
E - Desired Upgrades

**Total Costs: $1,988,514.00**

**DISCLAIMER: Data displayed below is for informational purposes only.**
**Updates Completed By Engineer**

**EXISTING DEFICIENCIES:**

**Water:** None

**Sewer:** The existing lagoon was designed as a single cell percolation lagoon. After several years of operation, it is apparent the lagoon does not have adequate capacity for percolation. The lagoon has filled to within 6 inches of overflowing unless it is discharged. The community therefore obtained a seasonal discharge permit. Presently only a pump, hose and a boat are used for discharge. A permanent discharge structure is needed.

**Solid Waste:** None

**O & M:** None.

**PROPOSED FACILITIES:**

**Water:** None

**Sewer:** Permanent lagoon discharge structure including a pump, controls, inlet works, and discharge line into Kotzebue Sound.

**Solid Waste:** None

**O & M:** None

**CIP Details:**

**Related Projects:**

**Ongoing Funding:**

COST ESTIMATE

| Scope Item | Funding Source | Quantity | Units | Health Impact Tier |
|---|---|---|---|---|
| Sewer, Other - Other sewer | IHS Regular | 1 | Ls. | C |

Health Impact Tier:
A - First Service
B - Regulatory Compliance
C - Essential Upgrades
D - Beneficial Upgrades
E - Desired Upgrades

**Total Costs: $440,000.00**

**DISCLAIMER: Data displayed below is for informational purposes only.**

**EXISTING DEFICIENCIES:**

**Water:** The current water treatment plant is housed in a dilapidated wood frame structure originally constructed in 1988. In addition to being near the end of the design life, the building has been flooded by sea water to a depth of two feet above the finished floor, and sustained structural damage to the entry way as a result of a 5,500 pound conex box being washed against the building during the storm of November 2011. The Los Angeles Times reported the storm s impact in Nome as the equivalent of a Category 3 hurricane. Video recordings of the storm taken from Little Diomede are available at: www.youtube.com/watch?v=6VRwJ1GHmNk and www.youtube.com/watch?v=n0DNnKlc9kM. The quality of the treated water is poor and not safe for drinking unless boiled for at least two minutes. High levels of Nitrate makes the water unfit for feeding infants under six months of age, and the arsenic levels (39.8ug/L) is nearly four times the maximum contaminant level. The community water source is a surface water collection system designed to collect rain and snow melt from the tundra during the summer. Little Diomede's water collection area is also a nesting area for approximately 700,000 birds pre year. The extremely high level of organic contaminates in the raw water result in unacceptable Chlorination disinfection byproducts (DBPs)level. Very few residents drink the water due to the chlorine odor. The watering point on the outside of the treatment plant building is covered by snow in the winter and abandoned. Residents use five gallon buckets to carry water from a hose bib in the treatment plat to their homes. A 420,000 gallon water storage tank is used to store the annual water supply from summer to summer (the water source is only available after thaw and before freeze up). Sludge build up in the tank is reported to be nearly a foot per year and historically the tank has been cleaned once every two years. The water tank insulation and siding was damage during the storm of November 2011 and not repaired.

**Sewer:** None

**Solid Waste:** None

**O & M:** None

**PROPOSED FACILITIES:**

**Water:** Design new water source and treatment system based on brackish well and desalinization to produce potable drinking water

**Sewer:** None

**Solid Waste:** None

**O & M:** None

COST ESTIMATE

| Scope Item | Funding Source | Quantity | Units | Health Impact Tier |
|---|---|---|---|---|
| WATER SOURCE - Ground water well, water source | IHS Regular | 1 | Ea. | B |

| | | | | |
|---|---|---|---|---|
| WATER TREATMENT - Foundation - conventional, local gravel, water treatment | IHS Regular | 900 | Sf. | B |
| WATER TREATMENT - Treatment plant, new, no foundation, water treatment | IHS Regular | 900 | Sf. | B |
| Water, Other - Professional Services (engineering) | IHS Regular | 1 | Ls. | A |

Health Impact Tier:
A - First Service
B - Regulatory Compliance
C - Essential Upgrades
D - Beneficial Upgrades
E - Desired Upgrades

**Total Costs: $1,702,788.00**

**DISCLAIMER: Data displayed below is for informational purposes only.**

**EXISTING DEFICIENCIES:**

**Water:** A Master Plan was developed in July 2012 along with a Business Plan. The funding was depleted before the plans were completed to the satisfaction of the Alaska State Village Save Water program reviewers. Development of a sound Master Plan or Preliminary Engineering Report is a prerequisite for funding from the Alaska State agencies. Recently the preferred format of the planning documents has been change from the "Master Plan" to the "Preliminary Engineering Report". There isn't an approved planning document for Little Diomede. The current water treatment plant is housed in a dilapidated wood frame structure originally constructed in 1988. In addition to being near the end of the design life, the building has been flooded by sea water to a depth of two feet above the finished floor, and sustained structural damage to the entry way as a result of a 5,500 pound conex box being washed against the building during the storm of November 2011. The Los Angeles Times reported the storm s impact in Nome as the equivalent of a Category 3 hurricane. Video recordings of the storm taken from Little Diomede are available at: www.youtube.com/watch?v=6VRwJ1GHmNk and www.youtube.com/watch?v=n0DNnKlc9kM. The quality of the treated water is poor and not safe for drinking unless boiled for at least two minutes. High levels of Nitrate makes the water unfit for feeding infants under six months of age, and the arsenic levels (39.8ug/L) is nearly four times the maximum contaminant level. The community water source is a surface water collection system designed to collect rain and snow melt from the tundra during the summer. Little Diomede's water collection area is also a nesting area for approximately 700,000 birds pre year. The extremely high level of organic contaminates in the raw water result in unacceptable Chlorination disinfection byproducts (DBPs)level. Very few residents drink the water due to the chlorine odor. The watering point on the outside of the treatment plant building is covered by snow in the winter and abandoned. Residents use five gallon buckets to carry water from a hose bib in the treatment plat to their homes. A 420,000 gallon water storage tank is used to store the annual water supply from summer to summer (the water source is only available after thaw and before freeze up). Sludge build up in the tank is reported to be nearly a foot per year and historically the tank has been cleaned once every two years. The water tank insulation and siding was damage during the storm of November 2011 and not repaired.

**Sewer:** A Master Plan was developed in July 2012 along with a Business Plan. The funding was depleted before the plans were completed to the satisfaction of the Alaska State Village Save Water program reviewers. Development of a sound Master Plan or Preliminary Engineering Report is a prerequisite for funding from the Alaska State agencies. Recently the preferred format of the planning documents has been change from the "Master Plan" to the "Preliminary Engineering Report". There isn't an approved planning document for Little Diomede.he community uses a self-haul honey bucket disposal system with beach/sea ice disposal. The washeteria and clinic use a septic tank and culvert seepage pit at the beach.

**Solid Waste:** None

**O & M:** None

**PROPOSED FACILITIES:**

**Water:** Complete a Preliminary Engineering Report and Business Plan for Little Diomede sanitation facilities. Design and construct a piped water system with delivery to in home plumbing systems. NOTE: Costs are not realistic and need to be updated, -15 pts applied.

**Sewer:** Complete a Preliminary Engineering Report and Business Plan for Little Diomede sanitation facilities Design and construct a piped sewer system with delivery to in home plumbing systems.

**Solid Waste:** None

**O & M:** None

COST ESTIMATE

| Scope Item | Funding Source | Quantity | Units | Health Impact Tier |
|---|---|---|---|---|
| Water, Other - Professional Services (engineering) | IHS Regular | 1 | Ls. | A |
| Sewer, Other - Professional Services (engineering) | IHS Regular | 1 | Ls. | A |
| SEWER COLLECTION - Mains, above ground, sewer collection | IHS Regular | 1500 | Ft. | A |
| SEWER COLLECTION - Service lines, above ground, sewer collection | IHS Regular | 2100 | Ft. | A |
| SEWER TREATMENT - Treatment plant, sewer treatment | IHS Regular | 1 | Ea. | A |
| WATER DISTRIBUTION - Mains, above ground, water distribution | IHS Regular | 3500 | Ft. | A |
| WATER DISTRIBUTION - Service lines, above ground, water distribution | IHS Regular | 3200 | Ft. | A |
| WATER DISTRIBUTION - In-house plumbing, water distribution | IHS Regular | 1 | Ea. | A |
| SEWER COLLECTION - In-house plumbing, gravity, sewer collection | IHS Regular | 1 | Ea. | A |
| Sewer, Other - Boardwalk, sewer other | IHS Regular | 400 | Ft. | A |
| Water, Other - Boardwalk, water other | IHS Regular | 400 | Ft. | A |
| Sewer, Other - Planning costs | IHS Regular | 1 | | A |
| Water, Other - Planning costs | IHS Regular | 1 | | A |

| | | | | |
|---|---|---|---|---|
| Sewer, Other - General estimate, sewer other | IHS Regular | 1 | Ls. | A |
| Water, Other - General estimate, water other | IHS Regular | 1 | Ls. | A |
| WATER DISTRIBUTION - Water storage tank, no foundation, water distribution | IHS Regular | 1 | Gal. | A |

Health Impact Tier:
A - First Service
B - Regulatory Compliance
C - Essential Upgrades
D - Beneficial Upgrades
E - Desired Upgrades

**Total Costs: $2,655,414.00**

**DISCLAIMER: Data displayed below is for informational purposes only.**

**EXISTING DEFICIENCIES:**

**Water:** None

**Sewer:** None

**Solid Waste:** Permitted open site needs fencing.

**O & M:** Needs O&M training.

**PROPOSED FACILITIES:**

**Water:** None

**Sewer:** None

**Solid Waste:** Complete fencing of site.

**O & M:** None

COST ESTIMATE

| Scope Item | Funding Source | Quantity | Units | Health Impact Tier |
|---|---|---|---|---|
| Solid Waste C (Development) - Other solid waste | IHS Regular | 1 | Ls. | D |

Health Impact Tier:
A - First Service
B - Regulatory Compliance
C - Essential Upgrades
D - Beneficial Upgrades
E - Desired Upgrades

**Total Costs: $30,576.00**

**DISCLAIMER: Data displayed below is for informational purposes only.**

**EXISTING DEFICIENCIES:**

**Water:** None

**Sewer:** None

**Solid Waste:** The existing permitted solid waste landfill used by both village and city is only partially fenced. 550 feet of fencing is still needed. Existing equipment to operate landfill is not adequate.

**O & M:** None

**PROPOSED FACILITIES:**

**Water:** None

**Sewer:** None

**Solid Waste:** Complete the fencing of landfill by constructing 550 additional feet of fencing. Provide for equipment (dozer) dedicated to the operation of the landfill. Provide a burn barrel for the reduction of waste (Eagle currently has a dedicated landfill operator).

**O & M:** None

COST ESTIMATE

| Scope Item | Funding Source | Quantity | Units | Health Impact Tier |
|---|---|---|---|---|
| Solid Waste C (Development) - Equipment, solid waste | IHS Regular | 1 | Ls. | D |
| Solid Waste C (Development) - Incinerator, solid waste | IHS Regular | 1 | Ea. | D |
| Solid Waste C (Development) - Other solid waste | IHS Regular | 1 | Ls. | D |

Health Impact Tier:
A - First Service
B - Regulatory Compliance
C - Essential Upgrades
D - Beneficial Upgrades
E - Desired Upgrades

**Total Costs: $181,840.00**

**DISCLAIMER: Data displayed below is for informational purposes only.**

**EXISTING DEFICIENCIES:**

**Water:** 20 homes lack water service

**Sewer:** 20 homes lack sewer service

**Solid Waste:** None

**O & M:** None

**PROPOSED FACILITIES:**

**Water:** This project will install water mains, water storage tank, well, water treatment plant, service lines and in-house plumbing to 20 homes lacking services to their homes.

**Sewer:** This project will provide sewer mains, lagoon, lift station, sewer service lines and in home plumbing to 20 homes

**Solid Waste:** None

**O & M:** None

COST ESTIMATE

| Scope Item | Funding Source | Quantity | Units | Health Impact Tier |
|---|---|---|---|---|
| Sewer, Other - General estimate, sewer other | IHS Regular | 1 | Ls. | A |
| Water, Other - Other water | IHS Regular | 1 | Ls. | A |

Health Impact Tier:
A - First Service
B - Regulatory Compliance
C - Essential Upgrades
D - Beneficial Upgrades
E - Desired Upgrades

**Total Costs: $10,232,659.00**

**DISCLAIMER: Data displayed below is for informational purposes only.**

**EXISTING DEFICIENCIES:**

**Water:** Community lacks a water distribution system.

**Sewer:** Community lacks a sewage collection system and a permitted community sewage disposal lagoon.

**Solid Waste:** Community lacks a permitted solid waste site.

**O & M:** Backup operator is not certified.

**PROPOSED FACILITIES:**

**Water:** None

**Sewer:** Once the new sewer lagoon and piped wasewater collection system is in place, the existing honey bucket lagoon will need to be closed.

**Solid Waste:** None

**O & M:** None

COST ESTIMATE

| Scope Item | Funding Source | Quantity | Units | Health Impact Tier |
|---|---|---|---|---|
| Sewer, Other - Other sewer | IHS Regular | 1 | Ls. | D |

Health Impact Tier:
A - First Service
B - Regulatory Compliance
C - Essential Upgrades
D - Beneficial Upgrades
E - Desired Upgrades

**Total Costs: $2,153,827.00**

**DISCLAIMER: Data displayed below is for informational purposes only.**
**Updates Completed By Engineer**

**EXISTING DEFICIENCIES:**

**Water:** 13 homes lack a water distribution system.

**Sewer:** 13 homes lack a sewage collection system.

**Solid Waste:** Community lacks a permitted solid waste site.

**O & M:** Backup operator is not certified

**PROPOSED FACILITIES:**

**Water:** Construction of a water distribution system (mains, services, and plumbing) to serve 13 homes.

**Sewer:** Construction of a new sewage collection system (mains, services, and plumbing) to serve 13 homes.

**Solid Waste:** None

**O & M:** None

**CIP Details:**

**Related Projects:** There is a new boardwalk project going in in 2014 and 2015.

**Ongoing Funding:** This is the continuation of a large water and sewer infrastructure project that is occuring in 2014-2017.

COST ESTIMATE

| Scope Item | Funding Source | Quantity | Units | Health Impact Tier |
|---|---|---|---|---|
| WATER DISTRIBUTION - Mains, above ground, water distribution | IHS Regular | 3312 | Ft. | A |
| Water, Other - Professional Services (engineering) | VSW/EPA | 1 | Ls. | A |
| SEWER COLLECTION - Force mains, above ground, sewer collection | IHS Regular | 1656 | Ft. | A |
| SEWER COLLECTION - Service lines, above ground, sewer collection | IHS Regular | 1300 | Ft. | A |
| SEWER COLLECTION - In-house plumbing, gravity, sewer collection | IHS Regular | 13 | Ea. | A |
| WATER DISTRIBUTION - In-house plumbing, water distribution | IHS Regular | 13 | Ea. | A |
| WATER DISTRIBUTION - Mains, direct bury, water distribution | IHS Regular | 1300 | Ft. | A |
| SEWER COLLECTION - Lift station, sewer collection | IHS Regular | 13 | Ea. | A |
| Sewer, Other - Other sewer | IHS Regular | 1 | Ls. | A |

| | | | | |
|---|---|---|---|---|
| Water, Other - Other water | IHS Regular | 1 | Ls. | A |

Health Impact Tier:
A - First Service
B - Regulatory Compliance
C - Essential Upgrades
D - Beneficial Upgrades
E - Desired Upgrades

**Total Costs: $4,727,260.00**

**DISCLAIMER: Data displayed below is for informational purposes only.**
**Updates Completed By Engineer**

**EXISTING DEFICIENCIES:**

**Water:** 18 homes lack a water distribution system.

**Sewer:** 18 homes lack a sewage collection system.

**Solid Waste:** Community lacks a permitted solid waste site.

**O & M:** Backup operator is not certified.

**PROPOSED FACILITIES:**

**Water:** Construction of water distribution system (mains, services, and plumbing) to serve 18 homes.

**Sewer:** Construction of sewage collection system (mains, services, and plumbing) to serve 18 homes.

**Solid Waste:** None

**O & M:** None

**CIP Details:**

**Related Projects:** There is a community boardwalk being installed in 2014 and 2015.

**Ongoing Funding:** There is a large ongoing water and sewer project occuring in 2014-2017.

COST ESTIMATE

| Scope Item | Funding Source | Quantity | Units | Health Impact Tier |
|---|---|---|---|---|
| WATER DISTRIBUTION - In-house plumbing, water distribution | IHS Regular | 18 | Ea. | A |
| Water, Other - Professional Services (engineering) | VSW/EPA | 1 | Ls. | A |
| SEWER COLLECTION - In-house plumbing, gravity, sewer collection | IHS Regular | 18 | Ea. | A |
| SEWER COLLECTION - Service lines, above ground, sewer collection | IHS Regular | 1800 | Ft. | A |
| WATER DISTRIBUTION - Service lines, direct bury, water distribution | IHS Regular | 1800 | Ft. | A |
| WATER DISTRIBUTION - Mains, above ground, water distribution | IHS Regular | 4344 | Ft. | A |
| SEWER COLLECTION - Force mains, above ground, sewer collection | IHS Regular | 2604 | Ft. | A |
| SEWER COLLECTION - Shop / garage, no foundation, sewer collection | IHS Regular | 500 | Sf. | A |
| SEWER COLLECTION - Foundation - freeze back piles, sewer collection | IHS Regular | 500 | Sf. | A |

| | | | | |
|---|---|---|---|---|
| SEWER COLLECTION - Lift station, sewer collection | IHS Regular | 18 | Ea. | A |
| Sewer, Other - Other sewer | IHS Regular | 1 | Ls. | A |
| Water, Other - Other water | IHS Regular | 1 | Ls. | A |

Health Impact Tier:
A - First Service
B - Regulatory Compliance
C - Essential Upgrades
D - Beneficial Upgrades
E - Desired Upgrades

**Total Costs: $6,845,020.00**

**DISCLAIMER: Data displayed below is for informational purposes only.**

**EXISTING DEFICIENCIES:**

**Water:** None

**Sewer:** None

**Solid Waste:** Community lacks a permitted solid waste site.

**O & M:** Backup operator is not certified.

**PROPOSED FACILITIES:**

**Water:** None

**Sewer:** None

**Solid Waste:** Construction of a permitted solid waste site, access road and support equipment.

**O & M:** None

COST ESTIMATE

| Scope Item | Funding Source | Quantity | Units | Health Impact Tier |
|---|---|---|---|---|
| Solid Waste B (Closure) - Closure, solid waste site | IHS Regular | 4 | Ac. | D |
| Solid Waste C (Development) - Development, solid waste site | IHS Regular | 1 | Ac. | D |
| Solid Waste C (Development) - Road, solid waste | IHS Regular | 2500 | Ft. | D |

Health Impact Tier:
A - First Service
B - Regulatory Compliance
C - Essential Upgrades
D - Beneficial Upgrades
E - Desired Upgrades

**Total Costs: $4,352,532.00**

**DISCLAIMER: Data displayed below is for informational purposes only.**

**EXISTING DEFICIENCIES:**

**Water:** None

**Sewer:** The existing sewage lagoon has 4-6" diameter trees growing in it. The first cell was designed as a percolating cell, and a second cell was added later. The first cell is undersized and is functioning as a cess pool, with uncontrolled sewage flow into the ground and overland to the second cell. The second cell offers little, if any, treatment since the majority of the sewage never reaches it. Fencing around the lagoon is in a state of disrepair and needs to be tightened/replaced to keep kids and animals out.

**Solid Waste:** None

**O & M:** None

**PROPOSED FACILITIES:**

**Water:** None

**Sewer:** Rehabilitate the lagoon by expanding and lining the first cell; cutting down the trees; rehabbing the second cell, as necessary, and replacing/repairing the fence.

**Solid Waste:** None

**O & M:** None

COST ESTIMATE

| Scope Item | Funding Source | Quantity | Units | Health Impact Tier |
|---|---|---|---|---|
| SEWER TREATMENT - Lagoon, borrow local material, sewer treatment | IHS Regular | 2 | Ac. | E |
| O & M, Other - Professional Services (engineering) | VSW/EPA | 1 | Ls. | E |

Health Impact Tier:
A - First Service
B - Regulatory Compliance
C - Essential Upgrades
D - Beneficial Upgrades
E - Desired Upgrades

**Total Costs: $751,493.00**

**DISCLAIMER: Data displayed below is for informational purposes only.**

**EXISTING DEFICIENCIES:**

**Water:** None

**Sewer:** Lift station does not comply with electrical code. Third party cost estimate exceeded original budget.

**Solid Waste:** None

**O & M:** None

**PROPOSED FACILITIES:**

**Water:** None

**Sewer:** Lift Station, full replacement of existing with new components.

**Solid Waste:** None

**O & M:** None

COST ESTIMATE

| Scope Item | Funding Source | Quantity | Units | Health Impact Tier |
|---|---|---|---|---|
| SEWER COLLECTION - Lift station, sewer collection | IHS Regular | 1 | Ea. | D |

Health Impact Tier:
A - First Service
B - Regulatory Compliance
C - Essential Upgrades
D - Beneficial Upgrades
E - Desired Upgrades

**Total Costs: $300,000.00**

**DISCLAIMER: Data displayed below is for informational purposes only.**

**EXISTING DEFICIENCIES:**

**Water:** None

**Sewer:** Lift station does not comply with electrical code. Third party cost estimate exceeded original budget.

**Solid Waste:** None

**O & M:** None

**PROPOSED FACILITIES:**

**Water:** None

**Sewer:** Lift Station, full replacement of existing with new components.

**Solid Waste:** None

**O & M:** None

COST ESTIMATE

| Scope Item | Funding Source | Quantity | Units | Health Impact Tier |
|---|---|---|---|---|
| SEWER COLLECTION - Lift station, sewer collection | IHS Regular | 1 | Ea. | D |

Health Impact Tier:
A - First Service
B - Regulatory Compliance
C - Essential Upgrades
D - Beneficial Upgrades
E - Desired Upgrades

**Total Costs: $300,000.00**

**DISCLAIMER: Data displayed below is for informational purposes only.**

**EXISTING DEFICIENCIES:**

**Water:** None

**Sewer:** 22 houses have onsite septic systems. The remaining homes are served by piped sewer. All the onsite systems have been tested, and all are failing. The houses are served by shallow wells, and there is concern that wastewater from the failed septic systems may contaminate the groundwater. Some of the lots are undersized for onsite septic.

**Solid Waste:** None

**O & M:** None

**PROPOSED FACILITIES:**

**Water:** None

**Sewer:** Expand the existing piped sewer system to serve the entire downtown area, eliminating the failed onsite septic systems. In areas outside of downtown, replace failed drainfields with new drainfields. Upgrade inhouse sewer plumbing, as necessary, for the piped system. This project is designed.

**Solid Waste:** None

**O & M:** None

COST ESTIMATE

| Scope Item | Funding Source | Quantity | Units | Health Impact Tier |
|---|---|---|---|---|
| SEWER COLLECTION - Force mains, direct bury, sewer collection | IHS Regular | 2100 | Ft. | C |
| SEWER COLLECTION - Service lines, direct bury, sewer collection | IHS Regular | 2500 | Ft. | C |
| SEWER COLLECTION - In-house plumbing, gravity, sewer collection | IHS Regular | 7 | Ea. | C |

Health Impact Tier:
A - First Service
B - Regulatory Compliance
C - Essential Upgrades
D - Beneficial Upgrades
E - Desired Upgrades

**Total Costs: $1,536,789.00**

**DISCLAIMER: Data displayed below is for informational purposes only.**

**EXISTING DEFICIENCIES:**

**Water:** None

**Sewer:** Seven homes have failed drainfields. Homeowners are also applying to Scattered Sites.

**Solid Waste:** None

**O & M:** None

**PROPOSED FACILITIES:**

**Water:** None

**Sewer:** Design and install alternate drainfields.

**Solid Waste:** None

**O & M:** None

COST ESTIMATE

| Scope Item | Funding Source | Quantity | Units | Health Impact Tier |
|---|---|---|---|---|
| SEWER TREATMENT - Septic tank/drainfield, individual, sewer treatment | IHS Regular | 7 | Ea. | C |

Health Impact Tier:
A - First Service
B - Regulatory Compliance
C - Essential Upgrades
D - Beneficial Upgrades
E - Desired Upgrades

**Total Costs: $455,000.00**

**DISCLAIMER: Data displayed below is for informational purposes only.**

**EXISTING DEFICIENCIES:**

**Water:** Currently, there is no back-up power supply for the pumps at the infiltration gallery. Although Elim does have a fairly reliable electrical grid, power outages do occur. Since Elim is a remote community, it may take several hours or days to ship spare parts for the generators. A Water Treatment Study prepared in February 2010 recommends the installation of pre-filtration polymer injection to meet the requirements of the LT1SWTR without the use of bag filters. Furthermore, component parts of the water treatment plant have either failed or are in need of replacement.

**Sewer:** None

**Solid Waste:** None

**O & M:** None

**PROPOSED FACILITIES:**

**Water:** Install a back-up power and control cables from the water treatment plant to the water intake structure. Install a polymer injection system and replace component parts to the process piping in the water treatment plant.

**Sewer:** None

**Solid Waste:** None

**O & M:** None

COST ESTIMATE

| Scope Item | Funding Source | Quantity | Units | Health Impact Tier |
|---|---|---|---|---|
| WATER SOURCE - Surface water gallery, water source | IHS Regular | 1 | Ea. | D |
| WATER TREATMENT - Treatment plant, rehabilitation, water treatment | IHS Regular | 1 | Ea. | C |
| WATER TREATMENT - Treatment plant, rehabilitation, water treatment | IHS Regular | 1 | Ea. | D |

Health Impact Tier:
A - First Service
B - Regulatory Compliance
C - Essential Upgrades
D - Beneficial Upgrades
E - Desired Upgrades

**Total Costs: $1,263,000.00**

**DISCLAIMER: Data displayed below is for informational purposes only.**

**EXISTING DEFICIENCIES:**

**Water:** Due to extensive leaks, the water storage tank is incapable of providing storage for the community and providing adequate disinfection time. In 2010 the tank leaked faster than it could be filled. Since that time some pin-holes in the floor tank were repaired; however, not all the leaks could be stopped and the tank is still leaking excessively. Repairs to the tank are only a temporary fix to the greater problem of the deterioration of the tank walls and floors. The tank is unable to maintain minimum water level to ensure required chlorine contact time in order to meet regulatory compliance identified in the ADEC Status Component Inspection report. A IDL=4 may be warranted. In essence the community does not have a functioning tank for storage or treatment.

**Sewer:** None

**Solid Waste:** None

**O & M:** None

**PROPOSED FACILITIES:**

**Water:** Construct a new 220,000 gallon water storage tank at the same location as the existing tank. Temporary water storage will be necessary while the existing tank is being demolished.

**Sewer:** None

**Solid Waste:** None

**O & M:** None

COST ESTIMATE

| Scope Item | Funding Source | Quantity | Units | Health Impact Tier |
|---|---|---|---|---|
| WATER DISTRIBUTION - Water storage tank, no foundation, water distribution | IHS Regular | 220000 | Gal. | D |
| Water, Other - Other water | IHS Regular | 1 | Ls. | D |

Health Impact Tier:
A - First Service
B - Regulatory Compliance
C - Essential Upgrades
D - Beneficial Upgrades
E - Desired Upgrades

**Total Costs: $2,251,000.00**

**DISCLAIMER: Data displayed below is for informational purposes only.**

**EXISTING DEFICIENCIES:**

**Water:** None

**Sewer:** The West Side septic tanks are subject to damage from storm events due to erosion of the beachfront and storm surges that have removed the lids and filled the tanks with seawater. Raw sewage was spilled along the beach during these events, creating a public health hazard. The marine outfall has been repaired numerous times at the toe of the beach. Raw sewage has leaked from this break in the outfall pipe, creating a public health hazard. The condition of the remaining outfall pipe is unknown. Reportedly, there is damage offshore from a barge or grounded ice.

**Solid Waste:** None

**O & M:** None

**PROPOSED FACILITIES:**

**Water:** None

**Sewer:** Inspect septic tanks and marine outfall line. Make minor repairs.

**Solid Waste:** None

**O & M:** None

COST ESTIMATE

| Scope Item | Funding Source | Quantity | Units | Health Impact Tier |
|---|---|---|---|---|
| Sewer, Other - Other sewer | IHS Regular | 1 | Ls. | D |

Health Impact Tier:
A - First Service
B - Regulatory Compliance
C - Essential Upgrades
D - Beneficial Upgrades
E - Desired Upgrades

**Total Costs: $76,600.00**

**DISCLAIMER: Data displayed below is for informational purposes only.**

**EXISTING DEFICIENCIES:**

**Water:** None

**Sewer:** The West Side septic tanks are subject to damage from storm events due to erosion of the beachfront and storm surges that have removed the lids and filled the tanks with seawater. Raw sewage was spilled along the beach during these events, creating a public health hazard.

**Solid Waste:** None

**O & M:** None

**PROPOSED FACILITIES:**

**Water:** None

**Sewer:** Construct a shoreline erosion protection (revetment) system to protect septic tanks from erosion forces.

**Solid Waste:** None

**O & M:** None

COST ESTIMATE

| Scope Item | Funding Source | Quantity | Units | Health Impact Tier |
|---|---|---|---|---|
| Sewer, Other - Other sewer | IHS Regular | 1 | Ls. | D |

Health Impact Tier:
A - First Service
B - Regulatory Compliance
C - Essential Upgrades
D - Beneficial Upgrades
E - Desired Upgrades

**Total Costs: $2,730,000.00**

**DISCLAIMER: Data displayed below is for informational purposes only.**

**EXISTING DEFICIENCIES:**

**Water:** Portions of the east water distribution loop were constructed with 4-inch PVC pipe. The PVC pipe is brittle and perpetually develop leaks needing repair.

**Sewer:** Portions of the east wastewater collection line were constructed with 6-nch PVC pipe. The PVC pipe shatters when it freezes, making this line susceptible to disruptions in service. Also, portions of this collection line are exposed to the ambient air and the section that suspends from the bridge is sagging.

**Solid Waste:** None

**O & M:** None

**PROPOSED FACILITIES:**

**Water:** Replace that portion of the east water distribution loop which is currently 4-inch PVC with 6-inch HDPE arctic water pipe. Replace water service lines and arctic boxes as well.

**Sewer:** Replace that portion of the east wastewater collection line which is currently 6-inch PVC with 8-inch HDPE arctic sewer pipe. Replace sewer service lines and arctic boxes as well.

**Solid Waste:** None

**O & M:** None

COST ESTIMATE

| Scope Item | Funding Source | Quantity | Units | Health Impact Tier |
|---|---|---|---|---|
| WATER DISTRIBUTION - Service lines, direct bury, water distribution | IHS Regular | 3660 | Ft. | D |
| SEWER COLLECTION - Mains, direct bury, sewer collection | IHS Regular | 1380 | Ft. | D |

Health Impact Tier:
A - First Service
B - Regulatory Compliance
C - Essential Upgrades
D - Beneficial Upgrades
E - Desired Upgrades

**Total Costs: $3,871,200.00**

**DISCLAIMER: Data displayed below is for informational purposes only.**
**Updates Completed By Engineer**

**EXISTING DEFICIENCIES:**

**Water:** Four new homes in Shelby Subdivision do not have piped water service.

**Sewer:** Four new homes in Shelby Subdivision do not have piped sewer service.

**Solid Waste:** None

**O & M:** None

**PROPOSED FACILITIES:**

**Water:** Construct water distribution lines and service lines to four homes.

**Sewer:** Construct sewer collection lines and service lines to four homes.

**Solid Waste:** None

**O & M:** None

**CIP Details:**

**Related Projects:** None.

**Ongoing Funding:** Construction of water distribution line in 2015.

COST ESTIMATE

| Scope Item | Funding Source | Quantity | Units | Health Impact Tier |
|---|---|---|---|---|
| SEWER COLLECTION - Mains, direct bury, sewer collection | IHS Regular | 590 | Ft. | A |
| SEWER COLLECTION - Service lines, direct bury, sewer collection | IHS Regular | 320 | Ft. | A |
| WATER DISTRIBUTION - Mains, direct bury, water distribution | Other | 1200 | Ft. | A |
| WATER DISTRIBUTION - Service lines, direct bury, water distribution | IHS Regular | 320 | Ft. | A |
| WATER DISTRIBUTION - Booster station, water distribution | Other | 1 | Ea. | A |

Health Impact Tier:
A - First Service
B - Regulatory Compliance
C - Essential Upgrades
D - Beneficial Upgrades
E - Desired Upgrades

**Total Costs: $898,800.00**

**DISCLAIMER: Data displayed below is for informational purposes only.**

**EXISTING DEFICIENCIES:**

**Water:** None

**Sewer:** None

**Solid Waste:** The old solid waste site is an unpermitted open dump that is full. There is unrestricted access to the site. A new solid waste site was constructed under Project AN 99-M27 with insufficient funds to close the old solid waste site. Therefore, closure of the old solid waste site remains as a deficiency. The fence surrounding the active solid waste site needs repairs.

**O & M:** None

**PROPOSED FACILITIES:**

**Water:** None

**Sewer:** None

**Solid Waste:** Cover and close the old solid waste site. Construct repairs to the fence surrounding the active solid waste site.

**O & M:** None

COST ESTIMATE

| Scope Item | Funding Source | Quantity | Units | Health Impact Tier |
|---|---|---|---|---|
| Solid Waste B (Closure) - Closure, solid waste site | IHS Regular | 1 | Ac. | D |
| Solid Waste C (Development) - General estimate, solid waste | IHS Regular | 1 | Ls. | D |

Health Impact Tier:
A - First Service
B - Regulatory Compliance
C - Essential Upgrades
D - Beneficial Upgrades
E - Desired Upgrades

**Total Costs: $197,000.00**

**DISCLAIMER: Data displayed below is for informational purposes only.**
**Updates Completed By Engineer**

**EXISTING DEFICIENCIES:**

**Water:** New home with no water service or indoor plumbing. Residents self haul water. These homes are located in the expansion area where the upcoming RD project will extend the water and sewer mains.

**Sewer:** New home with no sewer service or indoor plumbing. Residents use honeybuckets. There is no approved place to dispose of honeybucket waste in Emmonak because it is a piped community.

**Solid Waste:** None

**O & M:** None

**PROPOSED FACILITIES:**

**Water:** This project will construct water service and indoor plumbing

**Sewer:** This project will construct sewer service and indoor plumbing

**Solid Waste:** None

**O & M:** None

**CIP Details:**

**Related Projects:** Delta Street is being extended to 16EFG.

**Ongoing Funding:** RD and VSW are funding a large project to upgrade and expaned the piped system. However, the RD project does not include service lines for homes without prior service. The requested funds are for 3 services lines and house plumbing packages in the expansion area, known as 16EFG. This will corrdinate well with the ongoing RD project.

COST ESTIMATE

| Scope Item | Funding Source | Quantity | Units | Health Impact Tier |
|---|---|---|---|---|
| WATER DISTRIBUTION - Service lines, above ground, water distribution | IHS Regular | 200 | Ft. | A |
| SEWER COLLECTION - Service lines, above ground, sewer collection | IHS Regular | 200 | Ft. | A |
| WATER DISTRIBUTION - In-house plumbing, water distribution | IHS Regular | 2 | Ea. | A |
| SEWER COLLECTION - In-house plumbing, vacuum, sewer collection | IHS Regular | 2 | Ea. | A |
| SEWER COLLECTION - In-house plumbing, vacuum, sewer collection | VSW/EPA | 2 | Ea. | A |

Health Impact Tier:
A - First Service
B - Regulatory Compliance
C - Essential Upgrades
D - Beneficial Upgrades
E - Desired Upgrades

**Total Costs: $120,000.00**

**DISCLAIMER: Data displayed below is for informational purposes only.**

**EXISTING DEFICIENCIES:**

**Water:** None

**Sewer:** The community is currently served by individual septic systems. A pumper truck is essential to evacuate the sludge from the septic tanks on a routine basis. The City's existing pumper wagon is approximately 30 years old and has experienced many problems in recent years.

**Solid Waste:** None

**O & M:** None

**PROPOSED FACILITIES:**

**Water:** None

**Sewer:** Provide a new septic pumper truck and training for the operator.

**Solid Waste:** None

**O & M:** None

COST ESTIMATE

| Scope Item | Funding Source | Quantity | Units | Health Impact Tier |
|---|---|---|---|---|
| SEWER COLLECTION - Haul vehicle, sewer collection | IHS Regular | 1 | Ea. | D |

Health Impact Tier:
A - First Service
B - Regulatory Compliance
C - Essential Upgrades
D - Beneficial Upgrades
E - Desired Upgrades

**Total Costs: $193,500.00**

**DISCLAIMER: Data displayed below is for informational purposes only.**
**Updates Completed By Engineer**

**EXISTING DEFICIENCIES:**

**Water:** None

**Sewer:** All homes are served with individual on-site septic systems or seepage pits. Based on the findings from an inspection of the existing wastewater system completed in 2001, as many as half of the on-site systems have failed or are failing to the point of ponding or accumulation of sewage above ground (surfacing drainfields). The design and permitting for this project has been completed.

**Solid Waste:** None

**O & M:** None

**PROPOSED FACILITIES:**

**Water:** None

**Sewer:** This project will construct a community wastewater collection, treatment, and disposal system for the City of False Pass. This will include gravity sewer, manholes, service connections, grinder pump stations, force mains, septic tanks, pumper trcuk and an outfall pipe discharging into Isanotski Strait.

**Solid Waste:** None

**O & M:** None

**CIP Details:**

**Related Projects:**

**Ongoing Funding:**

COST ESTIMATE

| Scope Item | Funding Source | Quantity | Units | Health Impact Tier |
|---|---|---|---|---|
| SEWER COLLECTION - Force mains, direct bury, sewer collection | IHS Regular | 2700 | Ft. | C |
| SEWER COLLECTION - Service lines, direct bury, sewer collection | IHS Regular | 1800 | Ft. | C |
| SEWER TREATMENT - Septic tank, community, sewer treatment | IHS Regular | 2 | Ea. | C |
| SEWER TREATMENT - Ocean outfall, sewer treatment | IHS Regular | 1200 | Ft. | C |
| SEWER COLLECTION - Haul vehicle, sewer collection | IHS Regular | 1 | Ea. | C |
| SEWER COLLECTION - Mains, direct bury, sewer collection | IHS Regular | 3700 | Ft. | C |
| Sewer, Other - Other sewer | IHS Regular | 1 | Ls. | A |

Health Impact Tier:
A - First Service
B - Regulatory Compliance
C - Essential Upgrades
D - Beneficial Upgrades
E - Desired Upgrades

**Total Costs: $3,663,647.00**

**DISCLAIMER: Data displayed below is for informational purposes only.**

**EXISTING DEFICIENCIES:**

**Water:** None

**Sewer:** None

**Solid Waste:** The village does not have a solid waste management plan.

**O & M:** None

**PROPOSED FACILITIES:**

**Water:** None

**Sewer:** None

**Solid Waste:** Develop a solid waste management plan for the village.

**O & M:** None

COST ESTIMATE

| Scope Item | Funding Source | Quantity | Units | Health Impact Tier |
|---|---|---|---|---|
| Solid Waste A (Plan) - Management Plan, Solid Waste | IHS Regular | 1 | Ls. | D |

Health Impact Tier:
A - First Service
B - Regulatory Compliance
C - Essential Upgrades
D - Beneficial Upgrades
E - Desired Upgrades

**Total Costs: $75,000.00**